



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,418	08/24/2001	Daniel J. Dove	10015055-1	4205

7590 03/19/2007
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

HSU, ALPUS

ART UNIT	PAPER NUMBER
----------	--------------

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/939,418	DOVE, DANIEL J.	
	Examiner	Art Unit	
	Alpus H. Hsu	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 7 and 11 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 9, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2616

1. The indicated allowability of claim 12 in paragraph 8 of previous office action was in error due to a typographical error. The original claim 12 was rejected in paragraph 3 of the same office action. The correct claim number for allowability should have been claim 10.

2. Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 12 is objected as to failing to further limit the subject matter of a previous claim since it is claiming a media interface, which depends upon claim 1, which is claiming an apparatus.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 8, 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over MULLER et al. in U.S. Patent No. 6,044,087 or 6,061,362 (of record) in view of CHIEN in Pub. No. US 2002/0061018 A1 (newly cited), hereinafter referred to as CHIEN.

Referring to claims 1, 2 and 13, each of MULLER references discloses an apparatus and a method for interfacing a media access controller (MAC) and a physical layer device (PHY) for operating at least one of a gigabit media independent interface and a ten bit interface, and transfer data at a predetermined rate while substantially reducing the required number of input and output pins, by multiplexing data and control signals using both edges of a clock signal

Art Unit: 2616

having the predetermined rate; and, strategically mapping the data and control signals that are normally applied to a predetermined number of pins to a significantly lesser number of pins while still maintaining the operability of the interface (see col. 4, line 57 to col. 5, line 24, col. 6, line 66 to col. 7, line 13 in '087, col. 4, line 58 to col. 5, line 25, col. 6, line 66 to col. 7, line 13 in '362).

Referring to claim 8, each of MULLER references discloses an interface for interfacing a media access controller (MAC) and a physical layer device (PHY) for operating at least one of a gigabit media independent interface and a ten bit interface, and transfer data at a predetermined rate while substantially reducing the required number of input and output pins, by multiplexing data and control signals using both edges of a clock signal having the predetermined rate; and, strategically mapping the data and control signals that are normally applied to a predetermined number of pins to a significantly lesser number of pins while still maintaining the operability of the interface (see col. 4, line 57 to col. 5, line 24, col. 6, line 66 to col. 7, line 13 in '087, col. 4, line 58 to col. 5, line 25, col. 6, line 66 to col. 7, line 13 in '362). Additionally, each of MULLER references also discloses the feature of CRS and COL control signals being applied on a single pin (see col. 5, lines 25-34 in '087, col. 5, lines 26-35 in '362).

Both of MULLER references differ from the claims, in that, it does not disclose the feature of having the interface operating as either a gigabit media independent interface or a ten bit interface, which is well known in the art and commonly adopted by one skilled artisan for compatibility of many industry standard.

CHIEN, for example, from the similar field of endeavor, teaches the use of a Gigabit interface supporting a gigabit media independent interface and a ten bit interface, and being able

Art Unit: 2616

to operate as either a gigabit media independent interface or a ten bit interface (see paragraphs [0028] to [0029]), which can be easily adopted by one of skilled artisan to implement into either one of the MULLER references, to comply with current industry standard to further improve the system capability and compatibility.

Referring to claims 3-5 and 9, each of MULLER references fails to disclose the features of specific clock rate range, specific clock input/output skew, specific duty cycle for the clock signal, and specific number of pins to be reduced, which are all well known in the art and commonly used by one of ordinary skill in the art in the device to fulfill the system requirement by the users or designers, which would have been obvious to one of ordinary skill in the art to implement into the apparatus or interface in MULLER to further improve the system reliability and efficiency as desired.

Referring to claim 12, each of MULLER references also discloses the feature of CRS and COL control signals being applied on a single pin (see col. 5, lines 25-34 in '087, col. 5, lines 26-35 in '362).

5. Claims 6, 7 and 11 are allowed.
6. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2616

Fan et al., Lay and Sokol et al. are additionally cited to show the feature of a Gigabit interface in switching system for supporting a gigabit media independent interface and a ten bit interface similar to the claimed invention.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

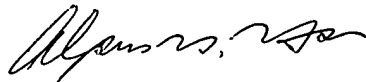
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



AHH

Alpus H. Hsu
Primary Examiner
Art Unit 2616